DEC 06 1991

MEMORANDUM

SUBJECT: Plan of Study - Steelcote Manufacturing Company

FROM: William A. Pedicino
Chief, Hydrogeology Section

TO: David Doyle
Chief, Compliance Section

We have completed our review of the above referenced document and have the following comments:

1. The project schedule must be better defined. It is our understanding that there will be two characterization reports, a draft and a final.

Page 14 of the plan states that the draft report will be submitted to the client within three months after the initial quarterly monitoring has been completed (month 5 1/2). Three months is too long for compilation of the limited amount of data that will be available. Figure 7 shows the draft report submitted upon completion of additional subsurface investigation (month 9), and page 18 says the draft form will be completed immediately following the completion of any additional subsurface investigations performed. Which is the correct schedule?

The final report will be submitted within three months after the final quarterly monitoring. Reading Figure 7 it appears that it only takes 90 days to complete the final report and there is a 90 day period after the final quarterly monitoring where there is no activity scheduled. What is the reason for the lag time? The proposed schedule could be condensed.

2. Technical Procedure 2 says that borings will be of sufficient diameter to permit at least two inches of annular space between the boring wall and all sides of the riser and screen. This is not possible when using 4 1/4 inch augers to install 2 inch diameter wells (page 11). A 6 1/2 inch auger should be used to install a 2 inch well. The larger space between the inner diameter of the auger and the outer diameter of the well casing should permit effective placement of the filter pack, bentonite seal, and grout.

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Granular bentonite or bentonite chips shall be used to construct the seal, with incremental layers placed in six-inch thick lifts. One to two gallons of potable water shall be added after placement of each six inches of granular bentonite, until a two-foot seal has been constructed. An additional two gallons of potable water shall be added and the bentonite seal allowed to hydrate for a minimum of eight hours prior to grout placement.

3. Technical Procedure 4 says that purge water removed from monitoring wells will be discharged on the ground near the well. Prior to analytical testing, all purge water must be containerized and treated as a hazardous waste. Fluids will be tested for hazardous waste by taking a representative grab sample from the holding container. If the purge water is shown to be non-hazardous, it may be disposed of on site in a manner which will ensure the integrity of the monitoring wells.

4. Technical Procedure 5 contains a wealth of information on permeability testing but does not identify the procedure(s) to be used at the Steelcote facility.

5. There needs to be further explanation of the Cross Contamination Preventative Measures, specifically the statement that no drill or equipment will be allowed to make borings if visual contamination is present on the equipment (Section 7.2 of the QA/QC Plan). What is the alternative to drilling into contamination? Will the location be abandoned and the boring relocated? What if an alternate location encounters visual contamination? EPA needs to see some contingency plans for drilling in contaminated areas.

The remainder of the QA/QC Plan and Technical Procedure 6 need to be reviewed by the EPA Lab.

If you have any questions about these comments, please contact Mark Collins at extension 7626.